



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2018-0165; Product Identifier 2017-NM-122-AD]

RIN 2120-AA64

Airworthiness Directives; Airbus Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all Airbus Model A318-111 and -112 airplanes, Model A319-111, -112, -113, -114, and -115 airplanes, Model A320-211, -212, -214, and -216 airplanes, and Model A321-111, -112, -211, -212, and -213 airplanes. This proposed AD was prompted by a report of a production quality deficiency on the inner retainer installed on link assemblies of the aft engine mount, which could result in failure of the retainer. This proposed AD would require modifying and re-identifying the aft engine mount assemblies. We are proposing this AD to address the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For Airbus service information identified in this NPRM, contact Airbus, Airworthiness Office – ELIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airworth-eas@airbus.com; Internet <http://www.airbus.com>.

For Goodrich Aerospace service information identified in this NPRM, contact Goodrich Corporation, Aerostructures, 850 Lagoon Drive, Chula Vista, CA 91910-2098; phone: 619-691-2719; email: jan.lewis@goodrich.com; Internet: <http://www.goodrich.com/TechPubs>.

You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0165; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the regulatory evaluation, any comments

received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Sanjay Ralhan, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3223.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2018-0165; Product Identifier 2017-NM-122-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all comments received by the closing date and may amend this NPRM based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this NPRM.

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive

2017-0251, dated December 15, 2017 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all Airbus Model A318-111 and -112 airplanes, Model A319-111, -112, -113, -114, and -115 airplanes, Model A320-211, -212, -214, and -216 airplanes, and Model A321-111, -112, -211, -212, and -213 airplanes. The MCAI states:

During in-service inspections, several aft engine mount inner retainers, fitted on aeroplanes equipped with CFM56-5A/5B engines, were found broken. Investigation identified that the main cause of crack initiation was the vibration dynamic effect that affects the retainers, and that the “dull” surface finish pitting is an aggravating factor when compared with the “bright” surface finishing.

This condition, if not detected and corrected, could lead to in-flight loss of an aft engine mount link, possibly resulting in damage to the aeroplane and/or injury to persons on the ground.

To address this potential unsafe condition, Airbus issued Alert Operators Transmission (AOT) A71N001-12 (later revised) and EASA issued AD 2013-0050 [which corresponds to FAA AD 2014-14-06, Amendment 39-17901 (79 FR 42655, July 23, 2014)], later superseded by EASA AD 2015-0021 [which corresponds to FAA AD 2016-14-09, Amendment 39-18590 (81 FR 44989, July 12, 2016) (“AD 2016-14-09”)], requiring repetitive detailed inspections (DET) of all aft engine mount inner retainers and, depending on findings, their replacement.

After EASA AD 2015-0021 was issued, a production quality deficiency was identified by Airbus and Goodrich Aerostructures, the engine mount retainer manufacturer, on the inner retainer, Part Number (P/N) 238-0252-505, installed in the three link assemblies of the engine mount fitted on CFM56-5A/5B engines. Airbus issued AOT A71N011-15 and Service Bulletin (SB) A320-71-1070, providing a list of affected parts and applicable corrective actions.

Consequently, EASA issued AD 2016-0010 (later revised), retaining the requirements of EASA AD 2015-0021, which was superseded, and in addition requiring the identification and replacement of all non-conforming aft engine mount inner retainers [EASA AD 2016-0010 R1 corresponds to FAA AD 2017-04-10, Amendment 39-18805 (82 FR 11791, February 27, 2017) (“AD 2017-04-10”)].

After that [EASA] AD was issued, a new engine mount retainer was developed by Goodrich Aerostructures to improve the retainer efficiency. For retrofit purposes, Goodrich Aerostructures issued SB RA32071-164, and Airbus issued SB A320-71-1071, providing instructions to modify and re-identify the engine mount assemblies as instructed in the Goodrich Aerostructures SB. Subsequently, it was observed that, on aeroplanes equipped with certain engines fitted with a Turbine Rear Frame (TRF) with 4 lugs configuration, the installation of the new engine mount retainers can lead to interference, and Goodrich Aerostructures revised SB RA32071-164, providing instructions not to install the new engine retainers on affected engines. Airbus SB A320-71-1071 is expected to be revised accordingly. For engines fitted with a TRF with 4 lugs, a new installation (potentially requiring different engine mount retainers) is being developed by Goodrich Aerospace and Airbus.

Consequently, EASA issued AD 2017-0138, retaining the requirements of EASA AD 2016-0010R1, which was superseded, and, except for aeroplanes equipped with engines fitted with a TRF with 4 lugs configuration, requiring modification and identification of aft engine mount assemblies as terminating action for the repetitive inspections of the retainers. That [EASA] AD also included additional instructions applicable to installation of engines fitted with a TRF with 4 lugs configuration.

Since EASA AD 2017-0138 was issued, it was determined that installation of new engine mount assemblies must not be allowed for some specific engine configurations, and that installation of Goodrich Aerostructures SB RA32071-164 alone can be referred to, in order to accomplish the terminating action as required by that [EASA] AD.

For the reason described above, this [EASA] AD retains the requirements of EASA AD 2017-0138, which is superseded, adds reference to Goodrich Aerostructures SB RA32071-164 * * *, and introduces new requirement for aeroplanes equipped with engines fitted with a TRF with 4 lugs configuration.

This NPRM would not supersede AD 2017-04-10. Rather, we have determined that a stand-alone AD would be more appropriate to address the changes in the MCAI. This NPRM would require modifying and re-identifying the aft engine mount assemblies. Accomplishment of the proposed actions would then terminate the repetitive detailed inspections required by paragraph (l) of AD 2016-14-09, and serve as a method of compliance for the requirements of paragraph (g) of AD 2017-04-10. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0165.

Related Service Information under 1 CFR part 51

Airbus has issued Service Bulletin A320-71-1071, dated November 8, 2016. Goodrich Aerostructures has issued Service Bulletin RA32071-164, Revision 1, dated July 19, 2017. The service information describes procedures for modifying and re-identifying the aft engine mount retainer assembly. These documents are distinct since they apply to different airplane models in different configurations.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA’s Determination and Requirements of this Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of these same type designs.

Costs of Compliance

We estimate that this proposed AD affects 500 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs				
Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Modification and re-identification	20 work-hours X \$85 per hour = \$1,700	\$3,152	\$4,852	\$2,426,000

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress

charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This proposed AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes to the Director of the System Oversight Division.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and

4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Airbus: Docket No. FAA-2018-0165; Product Identifier 2017-NM-122-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD affects AD 2016-14-09, Amendment 39-18590 (81 FR 44989, July 12, 2016) (“AD 2016-14-09”); and AD 2017-04-10, Amendment 39-18805 (82 FR 11791, February 27, 2017) (“AD 2017-04-10”).

(c) Applicability

This AD applies to the Airbus airplanes identified in paragraphs (c)(1) through (c)(4) of this AD, certificated in any category, all manufacturer serial numbers.

(1) Model A318-111 and -112 airplanes.

(2) Model A319-111, -112, -113, -114, and -115 airplanes.

(3) Model A320-211, -212, -214, and -216 airplanes.

(4) Model A321-111, -112, -211, -212, and -213 airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 71, Powerplant.

(e) Reason

This AD was prompted by a report of a production quality deficiency on the inner retainer installed on link assemblies of the aft engine mount, which could result in failure of the retainer. We are issuing this AD to address non-conforming retainers of the aft engine mount. This condition could result in loss of the locking feature of the nuts of the inner and outer pins; loss of the pins will result in the aft mount engine link no longer being secured to the aft engine mount, possibly resulting in damage to the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Definitions

(1) For the purpose of this AD: A Group 1 airplane has an aft engine mount assembly installed, having a part number (P/N) identified as “Old P/N” in figure 1 to paragraphs (g), (h), (i), (j), (k), and (l) of this AD. A Group 2 airplane does not have any

aft engine mount assembly installed having a part number identified as “Old P/N” in figure 1 to paragraphs (g), (h), (i), (j), (k), and (l) of this AD.

(2) For the purpose of this AD, a 4-lugs engine is a CFM56-5A1, CFM56-5A3, CFM56-5A4, CFM56-5A4/F, CFM56-5A5, or CFM56-5A5/F engine, fitted with a turbine rear frame (TRF) having a part number as identified in figure 2 to paragraph (g) of this AD.

Figure 1 to paragraphs (g), (h), (i), (j), (k), and (l) of this AD – Part re-identification

Old P/N	New P/N
238-0230-11	238M0230-11
238-0230-15	238M0230-15
238-0230-5	238M0230-5
642-2300-3	642-2300-11

Figure 2 to paragraph (g) of this AD – TRF with 4-lugs configuration

Part Number
336-031-615-0
336-031-617-0
336-031-618-0
336-031-621-0
336-031-650-0
336-031-651-0
336-031-652-0
336-031-653-0
336-031-660-0
336-031-661-0
336-031-662-0
336-031-663-0

Part Number
336-031-670-0
336-031-671-0
336-031-672-0
336-031-673-0
336-031-640-0
336-031-642-0

(h) Modification

For Group 1 airplanes: Within 48 months after the effective date of this AD, except for 4-lugs engines, modify the aft engine mount assembly, having a part number identified as “Old P/N” in figure 1 to paragraphs (g), (h), (i), (j), (k), and (l) of this AD, and re-identify it with the corresponding part number identified as “New P/N” in figure 1 to paragraphs (g), (h), (i), (j), (k), and (l) of this AD, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-71-1071, dated November 8, 2016; or Goodrich Aerostructures Service Bulletin RA32071-164, Revision 1, dated July 19, 2017.

(i) Other Acceptable Method of Compliance

Replacement on an airplane of each aft engine mount assembly, identified as “Old P/N” in figure 1 to paragraphs (g), (h), (i), (j), (k), and (l) of this AD, with a corresponding aft engine mount assembly, identified as “New P/N” in figure 1 to paragraphs (g), (h), (i), (j), (k), and (l) of this AD, is an acceptable method to comply with the requirements of paragraph (h) of this AD for that airplane.

(j) Identification of Certain Airplanes that do not have Affected Parts

An airplane on which Airbus modification 158435 has been embodied in production and on which it can be positively determined that no aft engine mount assembly, identified as “Old P/N” in figure 1 to paragraphs (g), (h), (i), (j), (k), and (l) of this AD, is installed, is considered a Group 2 airplane. A review of airplane maintenance records is acceptable to make this determination, if it can be conclusively determined that no aft engine mount assembly identified as “Old P/N” in figure 1 to paragraphs (g), (h), (i), (j), (k), and (l) of this AD is installed. Group 2 airplanes are not affected by the requirements of paragraph (h) of this AD.

(k) Parts Installation Prohibition

(1) For Group 1 airplanes: Do not install an aft engine mount assembly identified as “Old P/N” in figure 1 to paragraphs (g), (h), (i), (j), (k), and (l) of this AD on any airplane after modification of the airplane as required by paragraph (h) of this AD, or after any replacement specified in paragraph (i) of this AD.

(2) For Group 2 airplanes: As of the effective date of this AD, do not install an aft engine mount assembly identified as “Old P/N” in figure 1 to paragraphs (g), (h), (i), (j), (k), and (l) of this AD on any airplane.

(3) For airplanes equipped with a 4-lugs engine (left-hand (LH) or right-hand (RH) side): As of the effective date of this AD, do not modify any aft engine mount assembly identified as “Old P/N” in figure 1 to paragraphs (g), (h), (i), (j), (k), and (l) of this AD, as required by paragraph (h) of this AD, and do not install on an affected engine

pylon (LH or RH) any aft engine mount assembly identified as “New P/N” in figure 1 to paragraphs (g), (h), (i), (j), (k), and (l) of this AD.

(l) 4-Lugs Engine Installation

(1) From the effective date of this AD, it is allowed to install or reinstall a 4-lugs engine on an airplane (LH or RH) provided that the airplane is equipped with an aft engine mount assembly identified as “Old P/N” in figure 1 to paragraphs (g), (h), (i), (j), (k), and (l) of this AD on the affected engine pylon (LH or RH).

(2) For airplanes equipped with a 4-lugs engine (LH or RH), and on which, prior to the effective date of this AD, an aft engine mount assembly identified as “New P/N” in figure 1 to paragraphs (g), (h), (i), (j), (k), and (l) of this AD has been installed on the affected engine pylon (LH or RH), or on which the aft engine part assembly has been modified as specified in paragraph (h) of this AD: Within 30 days after the effective date of this AD, obtain repair instructions using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or the European Aviation Safety Agency (EASA); or Airbus’s EASA Design Organization Approval (DOA), and accomplish those instructions accordingly. If approved by the DOA, the approval must include the DOA-authorized signature.

(m) Terminating Action and Method of Compliance

(1) Modification of an airplane as required by paragraph (h) of this AD, or as specified in paragraph (i) of this AD, constitutes terminating action for the repetitive detailed inspections required by paragraph (l) of AD 2016-14-09 for that airplane.

(2) Modification of an airplane as required by paragraph (h) of this AD, or as specified in paragraph (i) of this AD, is a method of compliance with the requirements of paragraph (g) of AD 2017-04-10 for that airplane.

(n) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Section, Transport Standards Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Section, send it to the attention of the person identified in paragraph (p)(2) of this AD. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or EASA; or Airbus's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

(3) Required for Compliance (RC): If any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to

comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

(o) Special Flight Permits

Special flight permits, as described in Section 21.197 and Section 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199), are not allowed.

(p) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2017-0251 dated December 15, 2017, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0165.

(2) For more information about this AD, contact Sanjay Ralhan, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3223.

(3) For Airbus service information identified in this AD, contact Airbus, Airworthiness Office – EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airworth-eas@airbus.com; Internet <http://www.airbus.com>.

(4) For Goodrich Aerospace service information identified in this AD, contact Goodrich Corporation, Aerostructures, 850 Lagoon Drive, Chula Vista, CA 91910-2098; phone: 619-691-2719; email: jan.lewis@goodrich.com; Internet: <http://www.goodrich.com/TechPubs>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued in Renton, Washington, on March 5, 2018.

Michael Kaszycki,
Acting Director,
System Oversight Division,
Aircraft Certification Service.
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